

LYOPHILIZER (VACUUM FREEZE DRYER)



-55°C MODEL CLOUT
CAT. NO.: BE/CI/VFD-55
(MACHINE COMES WITH VACUUM PUMP)



-80°C MODEL MARVEL
CAT. NO.: BE/CI/VFD-80
(MACHINE COMES WITH VACUUM PUMP)

BioEra's Lyophilizers are compact, user-friendly and ready-to-use design to meet the requirement of longterm preservation of various organic materials without any alteration in their biological, chemical and physical characteristics. Through the process of vacuum freeze-drying, also known as lyophilization, aqueous samples enter a pre-frozen condition which is followed by sublimation of moisture. The process results in material having a vastly extended shelf-life causing BioEra's Lyophilizers to have a diverse range of applications in fields such as medicine and in food, chemical and biological products.

BioEra's professional Lyophilizers are intuitively designed and equipped with 7 inch TFT LCD touchscreen which serves to visualize the progression of lyophilization process with graphical representation in real-time and also acts as a control interface.

Complementary Top Press Manifold, 1 Pack Vials (22mm-100No.) & Crimper

MACHINE PACK LIST INCLUDES

- Lyophilization Machine with Power Cord
- In-built pre freezing facility with trays
- In-built Nitrogen inflation valve
- Vacuum Pump with Vacuum Interface
- USB Connectivity function
- Top Press Manifold

OTHER ACCESSORIES AS PER BIOERA'S CATALOG ARE AVAILABLE ON DEMAND



Crimper



Ampule Sealing Machine



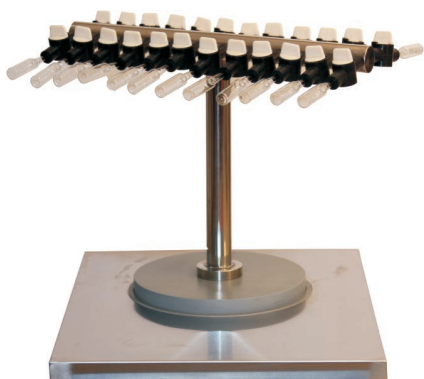
Vials



Ampules

FEATURES

- **Construction:** Stainless steel cold trap and sample holder trays ensures corrosion resistance and convenient cleaning
- **Capacity:** Capable of capturing 3 kg of water per 24 hour drying cycle
- **Refrigeration System:** Highly efficient and quiet compressor refrigeration technology for rapid cooling of samples to temperatures as low as -55°C in Model Clout and -80°C in Model Marvel
- **Pre-Freezing:** Spacious coil-free opening trap that allows pre-freezing of samples at -40°C and thus saves cost of having additional low temperature freezing system
- **Mobility:** For ease of maneuverability, Model Marvel comes equipped with wheels on the base of the unit and Model Clout can be availed with Trolley system
- **Compact:** User-friendly design allows BioEra's Lyophilization system to be easily accommodated in laboratory areas
- **Drying Room:** Bell-type drying room manufactured with organic glass is secure and transparent, allowing for clear visualization of lyophilization process
- **Sample Plates:** Drying Room accommodates multiple sample plates with adjustable spacing
- **Manifolds:** Allows for lyophilization of wide spectrum of sample volumes
 - Top Press Multipipeline Manifold facilitates connection of eight different sizes of flasks ranging from 100 ml to 1000 ml
 - T Type Manifold accommodates 24 ampoules via rubber adaptors equipped with regulator functionality
 - Top Press Manifold provides feasibility of vial Lyophilization
- **Eco-friendly:** Manufactured in accordance with international Green standards
- **Display System:** 7 inch TFT LCD touchscreen display enables monitoring of lyophilization progress in realtime through graphical visualization to make Lyophilization process more user friendly
- **Control:** Control panel with the aid of 7 inch TFT LCD touchscreen also acts as a simple, easy-to-use control system for regulating initialization of lyophilization process. Control System is designed to be intuitive and versatile, allows for regulation of compressor, vacuum pump and vacuometer
- **Data Storage:** Utilizes an embedded circuit design and is provided with 128 MB FLASH memory, for storage of up to a dozen lyophilization runs
- **Data Transfer:** Front-mounted USB port allows for convenient transfer of lyophilization curves through UDisk
- **Achievable Vacuum:** $<15\text{ Pa}$
- In-built nitrogen inflation valve
- **Applications:** Aside from extending shelf-life of a wide variety of products, BioEra's Lyophilizers can also be used for purification of samples through removal of organic solvents and for biological conservation



T Type Manifold



Top Press Multipipeline



Top Press Manifold

TECHNICAL SPECIFICATION

PARAMETERS	DESCRIPTION	
MODEL	CLOUT	MARVEL
Cat. No.	BE/CI/VFD-55	BE/CI/VFD-80
No-load temperature	< -55°C	< -80°C
No-load freeze area	0.08 m ²	
Plate load materials	1 L	
Water capture capability	3 kg / 24 h	
Vacuum	<15 Pa	
DRYING CAPACITY		
Number of Sample Trays	3	4
Tray Disk Diameter	Φ 180 mm (1200 ml)	Φ 200 mm (1800 ml)
Number of bottles that can be accommodated on Tray	160 bottle vials of 22 mm diameter	200 bottle vials of 22 mm diameter
Number of round bottom flasks that can be accommodated through Top Press Multipipeline manifold	8 round bottom flasks ranging from 100 ml to 1000 ml	
Number of Ampoules that can be accommodated through 'T' Type Manifold	24	
FUNCTIONING MODE		
Temperature	Ambient (10°C - 30°C)	
Relative Humidity	≤70 %	
Power	950 W	
Voltage	220 V ±10 % 50 Hz	
PHYSICAL MAKE-UP		
Communication	USB 2.0	
LCD Screen	7 inch TFT Touchscreen	
Dimension	450 x 460 x (380 + 450) mm	680 x 450 x (725 + 450) mm
Weight	80 kg	125 kg

ACCESSORIES FOR LYOPHILIZER

CAT. NO.	DESCRIPTION	QUANTITY / PACK
BE/CI/VFD/ACC-01	T Type Manifold	1 No.
BE/CI/VFD/ACC-02	Top Press Multipipeline Manifold	1 No.
BE/CI/VFD/ACC-03	Top Press Manifold	1 No.
BE/CI/VFD/ACC-04	Crimper 10 mm / 20 mm / 22 mm	1 Nos.
BE/CI/VFD/ACC-05	Vial 12 mm / 20 mm / 22 mm (Including Rubber & Aluminium Cap)	100 Nos.
BE/CI/VFD/ACC-06	Ampules 10 ml	100 Nos.
BE/CI/VFD/ACC-07	Ampule Sealing Machine	1 No.
BE/CI/VFD/ACC-08	Flask 100 ml	2 Nos.
BE/CI/VFD/ACC-09	Flask 250 ml	2 Nos.
BE/CI/VFD/ACC-10	Flask 500 ml	2 Nos.
BE/CI/VFD/ACC-11	Flask 1000 ml	2 Nos.